

**REMARKS**

With the entry of the present amendments, Claims 1-24 and 32-37 are pending in the application. Claims 25-31 have been canceled and Claims 12 and 24 have been amended.

In the Office Action of June 13, 2006, a restriction requirement was imposed dividing the claims into two groups. Specifically, the Office Action imposed a restriction requirement between the claims of Group I (Claims 1-11 and 24-37), drawn to substrates having biomolecules, and Group II (Claims 12-23), drawn to methods of producing substrates having biomolecules.

Applicants provisionally elect Group I (Claims 1-11, 24-37) with traverse. Applicants respectfully request reconsideration of the restriction requirement with regard to Groups I and II in light of the amendment to the claims and the remarks below.

Applicants refer the Examiner to an inadvertent mistake in the preamble of claim 24. This has been corrected in the amended claims and point out that amended claim 24 properly belongs to Group II.

According to MPEP § 803, two criteria must be met for a restriction requirement to be proper. First, the inventions must be independent or distinct as claimed. Second, a serious burden must be imposed on the Examiner if the restriction is not required. As stated in MPEP § 803, “if the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.” Applicants respectfully submit that the present restriction requirement meets neither criteria.

The claims of Group I and Group II do not represent distinct inventions. As noted by the Examiner, a process of making and a product made by the process can be shown to be distinct inventions if it can be shown that the product as claimed could be made by another materially different process. The Examiner relies upon the phrase “selectively arranging”, which appeared in the preamble of claim 12 as originally filed, to conclude that “the substrate of Invention I can

be made by coating a surface to covalently attach biomolecules with nanocylinders and does not require any selective arrangement, as required by the method of Invention II.” Applicants did not intend for the phrase “selectively arranging” in the preamble of claim 12 to provide a substantive limitation that would narrow the scope of the body of the claim. As used in the preamble of claim 12 as originally filed, the phrase “selectively arranging” was merely intended to indicate that the biomolecule bound to the substrate would dictate the location of attachment of the nanocylinder to the surface. In order to more clearly define the claimed subject matter, claim 12 has been amended to remove the phrase “of selectively arranging nanoscale objects on a substrate.” In light of this amendment, Applicants submit that the Examiner has not documented a viable alternative process by which the product of claim 1 may be produced, as required by MPEP § 806.05(f). For this reason Applicants respectfully request that this rejection be withdrawn.

Moreover, due to similarity between the method claims and the product claims, it is likely that the features that distinguish the product of claim 1 from the prior art references will be the same features that distinguish the method of claim 12 from those references because method claim 12 contains all of the limitations of product claim 1. Claim 1 recites “A modified substrate comprising:

(a) a substrate having a surface, the surface having at least one biomolecule bound thereto; and

(b) at least one nanocylinder having at least one complementary biomolecule covalently linked thereto;

wherein the at least one nanocylinder is attached to the surface through biomolecular interactions between the at least one biomolecule on the surface and the at least one complementary biomolecule on the at least one nanocylinder.”

Claim 12 recites “A method for producing a modified substrate comprising exposing:

a substrate having a surface, the surface having at least one biomolecule bound thereto, to

at least one nanocylinder having at least one complementary biomolecule covalently linked thereto,

wherein biomolecular interactions between the at least one biomolecule bound to the surface and the at least one complementary biomolecule covalently linked to the at least one nanocylinder attach the at least one nanocylinder to the surface.”

A review of these two claims reveals that the limitations and required elements for both claims are nearly identical, even though one is directed to a product and the other to a process. For this reason, Applicants submit that the search and examination of both sets of claims can be conducted without a serious burden to the Examiner and respectfully request that the restriction requirement between Groups I and II be withdrawn.

### CONCLUSION

For the foregoing reasons, it is respectfully submitted that the claims of Groups I and II may be examined together without placing a serious burden on the Examiner, and that the reasons given by the Examiner for insisting upon restriction of the claims have been overcome by the amendments and remarks contained herein. Thus, it is respectfully requested that the restriction requirement between the inventions of Groups I and II be withdrawn and that all pending claims be examined together.

Respectfully submitted,

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